



## Climate change, flooding in South Asia and implications

**Author(s):** Mirza MMQ  
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### Abstract:

South Asia is one of the most flood vulnerable regions in the world. Floods occur often in the region triggered by heavy monsoon precipitation and can cause enormous damages to lives, property, crops and infrastructure. The frequency of extreme floods is on the rise in Bangladesh, India and Pakistan. Past extreme floods fall within the range of climate variability but frequency, magnitude and extent flooding may increase in South Asia in future due to climate change. Flood risk is sensitive to different levels of warming. For example, in Bangladesh, analysis shows that most of the expected changes in flood depth and extent would occur between 0 and 2 degrees C warming. The three major rivers Ganges, Brahmaputra and Meghna/Barak will play similar roles in future flooding regimes as they are doing presently. Increases in future flooding can cause extensive damage to rice crops in the monsoon. This may have implications for food security especially of poor women and children. Floods can also impact public health in the flood plains and in the coastal areas.

**Source:** <http://dx.doi.org/10.1007/s10113-010-0184-7>

### Resource Description

#### Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Other Climate Scenario

**Other Climate Scenario:** CSIRO9;HadCM2;GFDL;LLNL

#### Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security

**Extreme Weather Event:** Flooding

**Food/Water Security:** Agricultural Productivity

#### Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

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## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Asia

**Asian Region/Country:** Other Asian Region

**Other Asian Region:** South Asia

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Injury

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Model/Methodology:**

type of model used or methodology development is a focus of resource

Cost/Economic, Exposure Change Prediction

**Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status, Pregnant Women

## **Resource Type:**

format or standard characteristic of resource

Review

## **Timescale:**

time period studied

Long-Term (>50 years)

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content